

Appl. No. 10/604,979
Amtd. dated Dec 2, 2004
Reply to Office action of September 03, 2004

Amendments to the Specification:

Please replace paragraph [0006] with the following amended paragraph:

5 Please refer to Fig.1. Fig.1 is a flow chart of a prior art method for analyzing final test parameters. As shown in Fig.1, step 101 is first executed by an engineer to perform various final test items ~~upon items upon~~ each semiconductor device after the packaging process. For example, the testing of certain electrical characteristics is performed ~~on the~~ ~~on the pins of the semiconductor devices.~~

10 Please replace paragraph [0008] with the following amended paragraph:

In step 103, the possibly faulty process step or the possibly faulty testing step is determined by way of personal experience acquired by an engineer, and is based upon the final test results of the abnormal products selected from step 102. A possibly faulty process step ~~may~~ may be, for example, a packaging process, and the possibly faulty 15 testing step, for example, may be an in-line quality control step, a sample test, etc.

Please replace paragraph [0028] with the following amended paragraph:

If the representative final test item is determined to not correlate with the packaging process step in step 203, the present invention method will execute analysis for other 20 correlating processes, such as an in-line quality control, a sample test, etc. (as shown in Fig.3 Fig.4). If the representative final test item is determined to correlate with the packaging process step in step 203, step 204 is executed to classify the plurality of product lots into at least a first qualified group and a first failed group according to the representative final test item. For example, the parameter of each product lot in item A 25 (the failure rate) is compared with a predefined spec of item A (for example: 20%) in this

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- step to determine if the parameter of each product lot in item A is greater than the predefined spec of item A. If it is not, the product lot is classed into group A (the first qualified group), for example, the lot numbers 1, 2, 3, 4, and 5 (as shown in step 205). If 5 it is, the product lot is classed into group B (the first failed group), for example, the lot numbers 6, 7, 8, 9 and 10 (as shown in step 206).

Please replace paragraph [0CB0] with the following amended paragraph:

- Please refer to Fig.4. Fig.4 is a flow chart of a method for analyzing final test parameters 10 if the representative final test item is determined to not correlate with correlate with the packaging process step according to the preferred embodiment of the present invention. As shown in Fig.4, step 401 is executed immediately after the representative final test item is determined to not correlate with correlate with the packaging process step in step 203. In step 401, the plurality of product lots are classified into at least a second qualified 15 group and a second failed group according to the representative final test item. In the preferred embodiment of the present invention, the parameter of each product lot in item A (the failure rate) is compared with the predefined spec of item A (for example: 20%) in this step to determine if the parameter of each product lot in item A is greater than the predefined spec of item A. If it is not, the product lot is classed into the second qualified 20 group. If it is, the product lot is classed into the second failed group.